What Is Claimed Is:

1. A micromechanical sensor having at least:
a substrate (1),
an external oxide layer (9) formed in a laterally external area (4) in the substrate (1),
a diaphragm (15) having multiple perforation holes (16) formed in a laterally internal diaphragm area (5),
a cavern (14) etched in the substrate (1) beneath the diaphragm (15),
the diaphragm (15) being suspended in a suspension area (10) of the external oxide layer (9), which tapers toward connection points (12) of the diaphragm (15), and
the diaphragm (15) being situated in its vertical height between a top side (17) and a bottom side (19) of the external oxide layer (9).

2. The micromechanical sensor as recited in Claim 1, wherein the external oxide layer (9) tapers in the suspension area (10) toward the fastening points (12) at an acute angle, e.g., in a wedge shape or a triangular shape.

3. The micromechanical sensor as recited in Claim 1 or 2, wherein the cavern (14) extends to beneath the external oxide layer (9) outside of the suspension area (10).

4. The micromechanical sensor as recited in one of the preceding claims,
wherein the diaphragm (15) has an internal oxide layer (2) and a nitride layer (3) formed on the internal oxide layer (2).

5. The micromechanical sensor as recited in one of Claims 1 through 3,
wherein the diaphragm (15) is formed from an internal oxide layer (2).

6. The micromechanical sensor as recited in one of the preceding claims,
wherein the diaphragm (15) is rectangular or round.

7. The micromechanical sensor as recited in one of the preceding claims,
wherein the diaphragm (15) is situated approximately at a middle vertical height of the external oxide layer (9).

8. A method for manufacturing a micromechanical sensor (20) having at least the following steps:
creating an internal oxide layer (2) on a substrate (1);
creating a nitride layer (3) on the internal oxide layer (2);
structuring the internal oxide layer (2) and the nitride layer (3) so that the internal oxide layer (2) and the nitride layer (3) preserved in a lateral middle diaphragm area (5) and removed in an external area (4) surrounding the middle diaphragm area (5);
local oxidation of the substrate (1) in the external area (4), creating an external oxide layer (9) which has a greater thickness than the total thickness of the diaphragm layer formed from the internal oxide layer (2) and the nitride layer (3);
creating perforation holes (16) in the diaphragm layer (2; 2, 3) in the diaphragm area (5);
supplying an etching gas that selectively etches the substrate (1) through the perforation holes (16) and creating a cavern (14) in the substrate (1) and a

diaphragm (15) above the cavern (14);
wherein the diaphragm (15) is situated in its vertical height between a top side (17) and a bottom side (19) of the external oxide layer (9) and is suspended in a suspension area (10) of the external oxide layer (9) that tapers toward the diaphragm (15).

9. The method as recited in Claim 8,
wherein the nitride layer (3) is removed from the diaphragm layer (2, 3) before creating the perforation holes (16).

10. The method as recited in Claim 9,
wherein the nitride layer (3) is removed from the diaphragm layer (2, 3) by a wet chemical process.

11. The method as recited in one of Claims 8 through 10,
wherein a tensile stress is exerted on the external oxide layer (9) during the etching of the cavern (14).

12. The method as recited in one of Claims 8 through 11,
wherein the cavern (14) is formed outside of the suspension area (10) as far as beneath the external oxide layer (9).

13. The method as recited in one of Claims 8 through 12,
wherein a thermopile structure (18) having at least two conductor areas (21, 22) that are contacted in a contact area (23) and an absorber layer (25) for absorption of infrared radiation are applied to the diaphragm (15).

14. The method as recited in one of Claims 8 through 13,
wherein the perforation holes (16) are subsequently sealed.

15. The method as recited in one of Claims 8 through 14, wherein a rectangular or round diaphragm (15) is formed.